

REMARKS/ARGUMENTS

Claims 1-27 have been rejected variously under 35 U.S.C. §§102(e) and 103(a) as being unpatentable over the following combination of references: *Yang* (U.S. Patent Appl. Serial No. 2003/0169980) (hereinafter *Yang*); *Lee et al.* (U.S. Patent No. 6,821,027) (hereinafter *Lee*); *Hargis et al.* (U.S. Patent No. 6,792,171) (hereinafter *Hargis*); *Nguyen et al.* (U.S. Patent No. 6,707,140) (hereinafter *Nguyen*); and *Lytel et al.* (U.S. Patent No. 6,619,858) (hereinafter *Lytel*). Reconsideration of the application is respectfully requested based on the following remarks.

Rejections Under 35 U.S.C. § 102

Claims 1, 13-15, 17, 18, & 20:

Claims 1, 13-15, 17, 18, & 20 stand rejected under 35 U. S. C. § 102 as being unpatentable over *Yang*. Amendments have been made to Claim 1 which are believed to place this claims in condition for allowance. Support for these amendments are found throughout the specification (e.g., Fig.6 and the related text).

The applicants point out that the "first substrate 14" of *Yang* is actually three substrates 14a, 14b, 14c, none of which contain all the claimed functionalities claimed in the present invention. For example, *Yang* does not include "a support block having a first face and a second face that are angled relative to one another with electrical traces that extend from the first face to the second face" or a support block that "is mounted on the chip package so that chip electrical contacts are electrically coupled to associated traces on the support block". Absent these limitations the *Yang* reference is insufficient to establish an anticipation rejection of Claims 1 (or any claims depending therefrom, i.e., 1-21). Accordingly, the applicant's request that withdrawal of this ground of rejection as to Claim 1. Moreover, for at least the forgoing reasons, the dependent claims are also believed allowable. Accordingly, the applicant's request that this ground of rejection be withdrawn as to dependent claims 13-15, 17, 18, and 20.

Claims 25 and 27:

Claims 25 & 27 stand rejected under 35 U. S. C. § 102 as being unpatentable over *Lee*. Amendments have been made to Claim 25 which are believed to place this claims in condition for allowance. Support for these amendments are found throughout the specification (e.g., Fig.6 and the related text).

Lee does not have a first substrate with an OE device that includes "a support block having a first face and a second face that are angled relative to one another with electrical traces that extend from the first face to the second face" or a support block that "is mounted on the chip package so that chip electrical contacts are electrically coupled to associated traces on the support block". Absent these limitations the *Lee* reference is insufficient to establish an anticipation rejection of Claims 25 and 27. Accordingly, the applicant's request that withdrawal of this ground of rejection as to Claims 25 and 27.

Rejections Under 35 U.S.C. § 103

Claims 12, 16, 19, and 21:

Claims 12, 16, 19, and 21 have been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Yang*. As explained above with respect to Claim 1 (upon which Claims 12, 16, 19, and 21 depend) *Yang* does not teach all the claim limitations as required under §103. For example, *Yang* does not teach a first substrate with an OE device that includes "a support block having a first face and a second face that are angled relative to one another with electrical traces that extend from the first face to the second face" or a support block that "is mounted on the chip package so that chip electrical contacts are electrically coupled to associated traces on the support block". Absent these, and other, limitations the *Yang* reference fails to establish a *prima facie* case of obviousness as to the rejected claims. Consequently, the *Yang* reference fails as a grounds for rejecting Claims 12, 16, 19, and 21. Accordingly, the applicant's request that the rejections of these claims be withdrawn.

Claims 2 and 3:

Claims 2 and 3 have been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Yang*, in view of *Hargis*. As explained above with respect to Claim 1 (upon which Claims 2 and 3 depend) *Yang* does not teach all the claim limitations as required under §103. For example, *Yang* does not teach a first substrate with an OE device that includes "a support block having a first face and a second face that are angled relative to one another with electrical traces that extend from the first face to the second face" or a support block that "is mounted on the chip package so that chip electrical contacts are electrically coupled to associated traces on the support block". Absent these, and other, limitations the *Yang* reference fails to establish a *prima facie* case of obviousness as to the rejected claims. Nothing in *Hargis* rectifies these shortcomings. Consequently, no reasonable combination of the *Yang* and *Hargis* references

provides grounds for rejecting the pending claims. Accordingly, the applicant's request that the pending claim rejections concerning claims 2 and 3 be withdrawn.

Claims 4-6 and 8-11:

Claims 4-6 and 8-11 have been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Yang*, in view of *Nguyen*. As explained above with respect to Claim 1 (upon which Claims 4-6 and 8-11 depend) *Yang* does not teach all the claim limitations as required under §103. For example, *Yang* does not teach a first substrate with an OE device that includes "a support block having a first face and a second face that are angled relative to one another with electrical traces that extend from the first face to the second face" or a support block that "is mounted on the chip package so that chip electrical contacts are electrically coupled to associated traces on the support block". Absent these, as well as other, limitations (e.g., the claim 5 limitation of a "support block [with] electrical traces formed on a flexi tape that is mounted on the support block") the *Yang* reference fails to establish a *prima facie* case of obviousness as to the rejected claims. Nothing in *Nguyen* rectifies these shortcomings. Consequently, no reasonable combination of the *Yang* and *Nguyen* references provides grounds for rejecting the pending claims. Accordingly, the applicant's request that the rejection of claims 4-6 and 8-11 be withdrawn.

Claim 7:

Claim 7 has been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Yang*, in view of *Nguyen*, further in view of *Hargis*. As explained above with respect to Claims 1 and 5 (upon which Claim 7 depends) *Yang* does not teach all the claim limitations as required under §103. In addition to the shortcomings of the cited art (as explained hereinabove) the cited combination of references does not teach an "electrical converter that is located on the second face of the support block". Absent these limitations, the cited combination of references fails to establish a *prima facie* case of obviousness as to the rejected claims. Nothing in *Yang*, *Nguyen*, and *Hargis* rectifies these shortcomings. Consequently, no reasonable combination of the *Yang*, *Nguyen*, and *Hargis* references provides grounds for rejecting the pending claims. Accordingly, the applicant's request that the rejection of claim 7 be withdrawn.

Claims 22-24:

Claims 22-24 have been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Lytel*. These grounds are now moot due to the cancellation of claims 22-24. Accordingly, applicant's request that this rejection be withdrawn.

Claim 26:

Claim 26 has been rejected under 35 U. S. C. § 103(a) as being unpatentable over *Lee*, in view of *Hargis*. As explained above with respect to Claims 25 (upon which Claim 26 depends) *Lee* does not teach all the claim limitations as required under §103. Nothing in *Hargis* remedies these shortcomings. Accordingly, the applicant's request that withdrawal of this ground of rejection as to Claim 26.

New Claims:

Claims 28, 29, 30, and 31 are hereby added to clarify certain patentable subject matter.

For example, **Claim 28** is dependent Claim 7, which is already believed to be allowable. Moreover, Claim 28 further includes an "electrical converter located on the second face" of the support block. This is allowable for a number of reasons, not the least of which is the lack of a support block in the cited art.

Claims 29-31 articulate a slightly different family of claims that include a pair of substantially parallel circuit boards that include one board configured as an optical port and another as an electrical port. The boards are arranged so that the optical port faces in one direction with the electrical connections facing in a directly opposite direction. The board's height can be adjusted as needed (due to varying format) due to the flexible electrical connector between the boards. Additionally, a support block can be used to orient and connect the photonic devices with the chip package. This is not found in the cited references. Accordingly, it is respectfully submitted that these claims should be allowable.

Summary:

Based on the foregoing, it is respectfully submitted that all pending claims have overcome the rejections made in view of the cited art. Additional limitations recited in the independent claims or the dependent claims have generally not been discussed as the lines of reasoning offered above are believed sufficient to distinguish the claimed inventions from the

cited art. Additionally, the new claims submitted above are also believed to be patentable for at least the reasons offered above. Accordingly, Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner.

The applicants cordially invite the Examiner to telephone the patent attorney to discuss any matters deemed important. Also, if the Examiner believes that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,

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